

AMENDMENTS

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6. (Withdrawn).

7. (Currently Amended) A process for performing cardiopulmonary bypass surgery in a human comprising the following steps:

- i) preparing a patient to allow surgical access to the heart;
- ii) inducing arrest of the heart through application of a cardioplegia solution comprising the following chemicals dissolved therein in the following concentrations:

Pyruvate (mM)	0.2 – 50
NaCl (mM)	0-250
KCl (mM)	0-250
Glucose (mM)	0-200
Insulin (U/l)	0-200
CaCl ₂ (mM)	0-20
Lidocaine (g/l)	0-2
- iii) providing a bypass mechanism to a partially or wholly obstructed artery;
- iv) ceasing administration of the cardioplegia solution;
- v) providing a chemical or mechanical stimulus to induce the heart to resume beating;
- vi) completing the surgical procedure.

8. (Currently Amended) A process for performing cardiopulmonary bypass surgery in a human comprising the following steps:

9. (Original) The process of claim 8, wherein the ratio of blood volume to cardioplegia solution volume is between 0.1:1 and 20:1.

10. (Original) The process of claim 8, wherein the ratio of blood volume to cardioplegia solution volume is between 1:1 and 10:1.

11. (Original) The process of claim 8, wherein the ratio of blood volume to cardioplegia solution volume is between 2:1 and 8:1.

12. (Original) The process of claim 7, wherein the cardioplegia solution protects the heart from injury resulting from ischemia.

13. (Original) The process of claim 7, wherein the heart exhibits rapid and robust recovery of mechanical function following the provision of a mechanical or chemical stimulus to resume beating.

14. (Original) The process of claim 7, wherein the cardioplegia solution stabilizes the heart's energy reserves during the cardiopulmonary bypass surgery.

15. (Original) The process of claim 7, wherein metabolism of the cardioplegia solution by the heart produces compounds which neutralize prooxidant compounds during and immediately after the period of arrest.

16. (Original) The process of claim 7, wherein metabolism of the cardioplegia solution by the heart maintains the heart's antioxidant components during cardiopulmonary bypass surgery.

17. (Original) The process of claim 7, wherein pharmacological inotropic support is not administered following completion of the surgical procedure.

18. (Withdrawn).